

Claims

1. A method for detecting a target nucleic acid having a target sequence in a sample, comprising the steps of:

(a) mixing a first probe including a nucleic acid which has a specific region having a sequence complementary to the target sequence and a nonspecific region having a sequence that is not complementary to the target sequence of the target nucleic acid; a second probe including a nucleic acid which has a first region that is complementary to at least a portion of the nonspecific region of the first probe, a loop region that does not have a sequence complementary to the first probe, and a second region that is complementary to at least a portion of the specific region of the first probe, the loop region being capable of forming a loop when it is annealed with the first probe, wherein the nucleic acid is labeled with a labeling material generating a signal by which formation of the aforementioned loop can be detected; and a sample under conditions in which the first probe and the second probe are annealed and the first probe and the target nucleic acid are annealed; and

(b) detecting a signal of the labeling material.

2. A method according to claim 1, wherein the second region of the second probe is shorter than the specific region of the first probe.

3. A method according to claim 1 or 2, wherein the labeling material comprises a fluorescent material and a quencher that quenches the fluorescence of the fluorescent material when the quencher is near the fluorescent material, arranged so as to sandwich the loop region, with the fluorescence of the fluorescent material being quenched by the quencher when the first probe and the second probe are annealed to form the loop and not quenched when the first probe and the second probe are not annealed as compared when the probes are not annealed.

4. A method according to any one of claims 1 to 3, wherein the detection of the signal is performed quantitatively, thereby quantifying the target nucleic acid.

5. A kit for detecting a target nucleic acid having a target sequence in a sample, comprising a first probe including a nucleic acid which has a specific region having a sequence complementary to the target sequence and a nonspecific region having a sequence that is not complementary to the target sequence of the target nucleic acid; a second probe including a nucleic acid having a first region that is complementary to at least a portion of the nonspecific region of the first probe, a loop region that does not have a sequence complementary to the first probe, and a second region that is

complementary to at least a portion of the specific region of the first probe, the loop region being capable of forming a loop when it is annealed with the first probe, wherein the nucleic acid is labeled with a labeling material generating a signal by which formation of the aforementioned loop can be detected.